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10/509,861	10/01/2004	Dirk Mangler	HM-598PCT	4307

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FRIEDRICH KUEFFNER
317 MADISON AVENUE, SUITE 910
NEW YORK, NY 10017

EXAMINER	
KERNS, KEVIN P	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DIRK MANGLER, MARKUS REIFFERSCHEID,
and UWE PLOCIENNIK

Appeal 2009-3474
Application 10/509,861
Technology Center 1700

Decided:[1] May 07, 2009

Before CHUNG K. PAK, CHARLES F. WARREN, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

decision finally rejecting claims 1-5 (Final Office Action, mailed Feb. 3, 2006), the only claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

STATEMENT OF THE CASE

Claim 1, the sole independent claim, is illustrative of the subject matter on appeal, and is reproduced from the Claims Appendix to the Appeal Brief ("Br."), filed October 16, 2006:

1. Mold for the continuous casting of molten metals, especially steel, with cooling channels (1), such as grooves, slits, or bores, in the side (2) of the mold that faces away from the melt contact surface, in which mold, in conformity with the design of the cooling channels (1), the cooling effect of the cooling channels (1) is maximized in the region of the maximum heat flux density or the maximum temperature of the contact surface (18), wherein the local heat-transfer cooling channel surfaces are adapted varyingly via geometric designs of the heat-transfer surface areas of a cooling channel (1) or of a group of cooling channels in shape, cross-sectional area, circumference, boundary surface properties, and orientation relative to the contact surface to the local development of the heat flux density and/or temperature of the contact surface (18) in the casting operation, such that to influence the local cooling intensity of a cooling channel (1), its effective heat-exchange surfaces on the base of the channel or on the lateral surfaces are increased or decreased, and to influence the local cooling intensity of a cooling channel (1), its isoperimetric cross-sectional area is increased by providing additional grooves in the base or lateral surfaces or decreased by inserting displacement bodies.

The Examiner relies on the following evidence to establish unpatentability (Supplemental Examiner's Answer ("Ans."), mailed Sep. 2, 2008[2], 3):

[2] The Supplemental Examiner's Answer was mailed in response to a remand (under 37 C.F.R. §41.50(a)(1)) by this panel (mailed Aug. 10, 2007)

Marr GB 1,082,988 Sept. 13, 1967

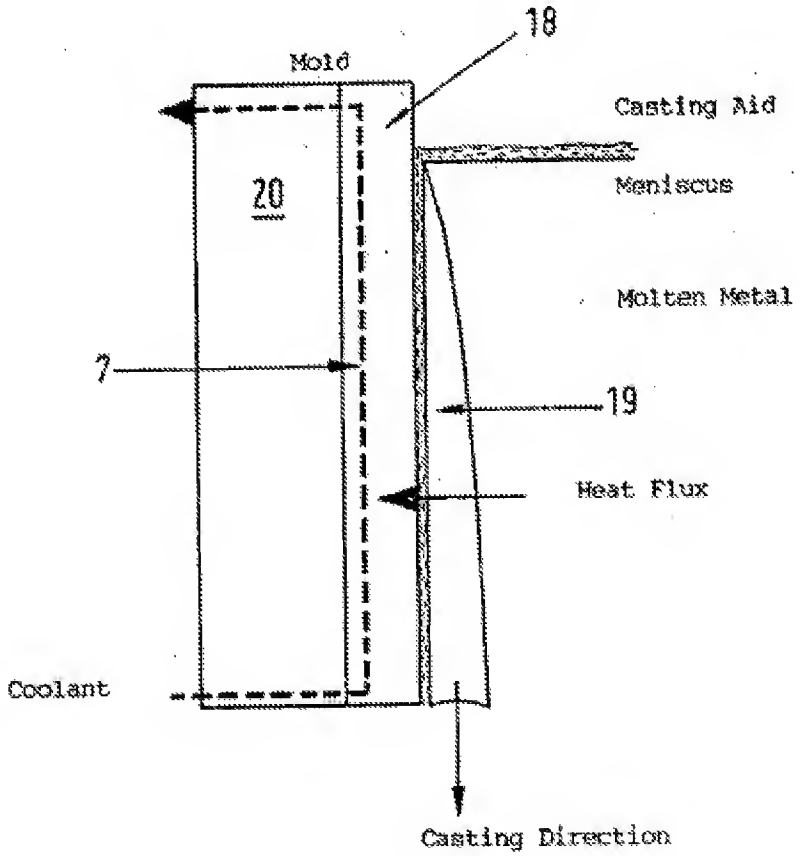
Appellants request review of the sole ground of rejection (Br. 5): claims 1-5 under 35 U.S.C. § 102(b) as anticipated by Marr.

ISSUE

Have Appellants shown reversible error in the Examiner's determination that Marr discloses cooling channel surfaces having the features recited in claim 1? We answer this question in the negative.

FINDINGS OF FACT ("FF")

1. Figure 8 of the present Application is reproduced below:



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requesting clarification of how the claim language had been interpreted and explicit identification of the claim limitations in Marr.

Application "Figure 8 shows a cross section of part of a mold wall with cooling channels and the associated heat flux." (Spec. 16.)

2. Claim 1 requires that "the cooling effect of the cooling channels (1) is maximized in the region of the maximum heat flux density *or* the maximum temperature of the contact surface (18)" (emphasis added).

3. According to the Specification, increasing the surface area of the base or lateral surfaces of the cooling channels creates a more intensive cooling effect at the same flow rate of coolant thereby reducing temperatures of the mold. (Spec. 13) The Specification explains that cooling channel surfaces can be enlarged by forming variously shaped scores (Spec. 18) and by drilling, "preferably in the meniscus region, with the use of a broaching tool" (Spec. 14).

4. Marr discloses a cooling system for a mold in which a restrictor rod is positioned in and extends along a major part of a cooling passage. (1:56-68.) "[A] major part of its periphery conforms to and is in contact with the periphery of said passage and . . . the remaining part . . . is spaced from the periphery of said passage to form a space for the flow of a cooling medium." (1:59-64.) The space is "positioned on the side of the passage axis nearest the material-contacting surface to ensure optimum heat transfer from the surface to the medium." (1:65-69.) Marr discloses that one method of allowing water to flow as close to the mold face as possible is to "enlarge each passage by broaching to a greater cross-sectional area." (2:84-88.) In Figures 12-17, Marr illustrates how the cross-sectional areas of the cooling channels may be varied through the use of removable rods of varying geometries. (*See* 2:6-10.) Marr notes that "more than two [rods] in appropriate passages may be provided." (2:65-66.)

PRINCIPLES OF LAW

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

"[A]nticipation is a question of fact, including whether an element is inherent in the prior art." *In re Martin Gleave,* 560 F.3d 1331, 1334-35 (Fed. Cir. 2009) (*citing Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006)).

When "the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product." *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977); *see also*, *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) ("[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.").

ANALYSIS

Appellants argue that Marr fails to "disclose or suggest that the 'cooling channel surfaces are adapted . . . in shape, cross-sectional area, . . . to the local development of the heat flux density . . . in the casting operation . . .', as in the presently claimed invention." (Br. 6-7.) On pages 5 and 6 of the Supplemental Answer, the Examiner responds to Appellants' argument by explicitly identifying the sections of Marr's Specification and Figures in which these features are disclosed. Based on our review of the record (*see* above findings of fact), the Examiner's findings are reasonable.

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). Appellants have not filed a Reply Brief. Nor have Appellants otherwise explained, with any degree of specificity, why the Examiner erred in finding that the identified features of Marr's mold correspond to Appellants' claim limitations. (*See generally*, App. Br.)

CONCLUSION

Because Appellants have not identified error in the Examiner's findings, Appellants have not shown that the Examiner reversibly erred in rejecting the claims as anticipated by Marr. Accordingly, we sustain the rejection of claims 1-5 under 35 U.S.C. § 102(b) as anticipated Marr.

The decision of the Examiner rejecting claims 1-5 is affirmed.

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

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FRIEDRICH KUEFFNER
317 MADISON AVENUE, SUITE 910
NEW YORK, NY 10017